UNICOR, FEDERAL PRISON INDUSTRIES

Solar Modules
Made in the USA

Datasheet: PVM220PS -Q6LTT 200, 205, 210, 215, 220 (x)

Making Renewable Energy Work

Federal Prison Industries (FPI) is a wholly owned government corporation within the Department of Justice. Our focus is on creating quality, cost effective products while assisting our Federal customers in meeting various procurement requirements. Our Solar Modules meet the requirements of the Buy American Act, Trade Agreement Act and the American Recovery & Reinvestment Act. We provide the expertise and guidance to help meet all Federal Renewable energy guidelines, including EPACT 2005, EISA 2007, Executive Orders 13423 and 13514.

Affordable Photovoltaic Panels

Because FPI's PV modules are domestically sourced and produced, we can provide federal customers with affordable, environmentally sound multicrystalline solar panel products. Our efficient modules are produced in ISO 9001 certified factories and meet UL 1703 standards.

Turn-Key Services and Support

FPI is prepared to provide complete turn-key services and support on behalf of federal government agencies. We work closely with solar power providers and installers that can design, deliver and install your solar power system. Our complete range of services includes:

- ⇒ Project Management
- ⇒ Customized Technology Solutions
- ⇒ Systems Design
- ⇒ Facility Upgrades
- ⇒ Installation
- ⇒ Operation and Maintenance

About FPI

Federal Prison Industries, also known as UNICOR, is a self-funded, self-supporting government corporation that provides technical training and meaningful work experience to federal inmates. Many inmates in FPI's program have become productive citizens and support their families, saving taxpayers money and benefiting society.

A Sustainable Solution

Whether you need high quality photovoltaic solar modules, predictable and controlled energy sourcing, on site energy supply, or federal government procurement expertise, Federal Prison Industries is your sustainable solution!

Photography: compliments of Melephoto

PRODUCT SPECIFICATIONS

MODULE PVM220PS

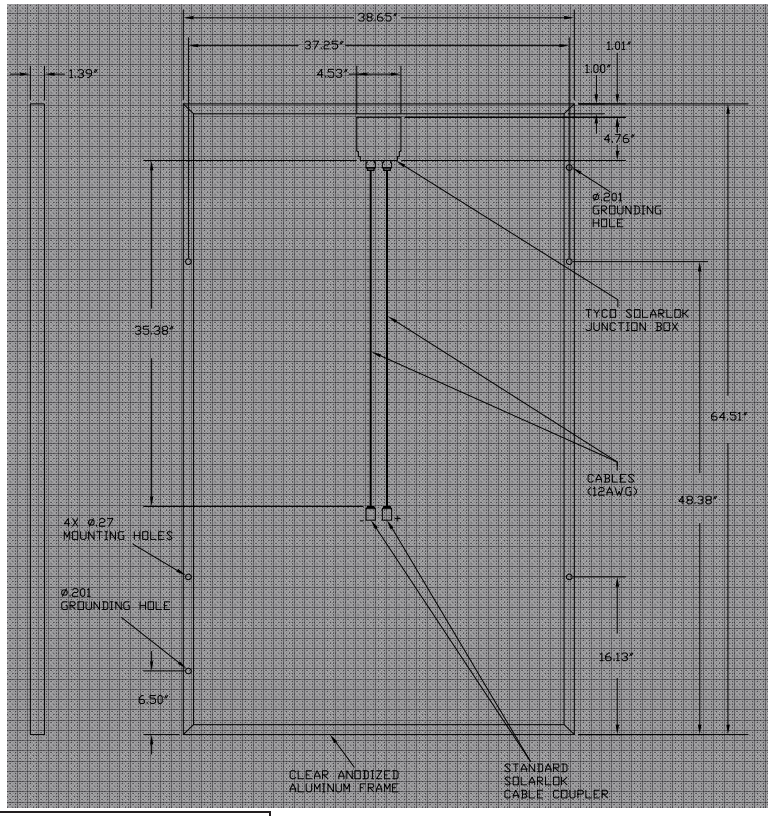
Electrical Characteristics[1]					
Model PVM220PS-	Q6LTT 200 (x)	Q6LTT 205 (x)	Q6LTT 210 (x)	Q6LTT 215 (x)	Q6LTT 220 (x)
Maximum Power, Pmpp, Pmax	200 W	205 W	210 W	215 W	220 W
Maximum Power Voltage, Vmpp	27.7 V	28.1 V	28.5 V	28.9 V	29.3 V
Maximum Power Current, Impp	7.25 A	7.32 A	7.40 A	7.47 A	7.54 A
Open Circuit Current, Voc	36.1 V	36.3 V	36.5 V	36.8 V	37.0 V
Short Circuit Current, Isc	7.78 A	7.84 A	7.90 A	7.96 A	8.02 A
Power output tolerance	±1.25%	±1.25%	±1.25%	±1.25%	±1.25%
Module efficiency	12.4%	12.7%	13.1%	13.4%	13.7%
Operating Module Temperature	-40 to 85°C	-40 to 85°C	-40 to 85°C	-40 to 85°C	-40 to 85°C
Maximum Series Fuse Rating	15 A	15 A	15 A	15 A	15 A
Nominal Voltage	24 V	24 V	24 V	24 V	24 V
Limiting Reverse Current	15 A	15 A	15 A	15 A	15 A
Maximum system voltage	600V	600V	600V	600V	600V
PTC[2]	179.3 W	183.9 W	188.5 W	193.1 W	197.7 W

[1]Values at Standard Test Conditions (STC): 1000W/m² irradiance, AM1.5 solar spectrum, 77°F/ 25°C module temperature

[2]Values at PV-USA Test Conditions (PTC): 1000W/m² irradiance, 20°C air temperature, 1 m/s wind speed

Data at Normal Operating Cell Temperature (NOCT)[3]	
Maximum Power, Pmpp, Pmax	150.75 W
Maximum Power Voltage, Vmpp	25.64 V
Maximum Power Current, Impp	5.88 A
Open Circuit Current, Voc	33.00 V
Short Circuit Current, Isc	6.37 A
Temperature (°C)	46 ± 3° C

[3]Values at Nominal Operation Cell Temperature (NOCT), 800W/m² irradiance, AM1.5 solar spectrum, 68°F/ 20°C air temperature, 1 m/s wind speed; All NOCT measurements are based on a 210 W module



Warranty

⇒ 5 year limited warranty on materials and workmanship
⇒ 12 year limited warranty on 90% of power output
⇒ 25 year limited warranty on 80% of power output

All warranties are backed by the Federal Government.
Panels are delivered with 25 panels per pallet.
This product is certified to UL 1703 standards.

Mechanical Characteristics

Solar Cells	60 multicrystalline 6 " silicon cells (156mm x156mm) in series
Front Cover	5/32" High Transmission Tempered Glass, 90.7% Transmittance
Encapsulant	EVA
Back Cover	White Polyester
Frame	Clear anodized aluminum, Double walled
Diodes	3 SL1515 (16A) bypass diodes
Junction Box	Tyco Solarlok with bypass diodes, UL 1703 compliant
Output Cables	12 AWG, 1 Meter long with Standard Cable Coupler
Mechanical Load	Method 41, 30 lbs/ft²
External Dimensions	64.51" x 38.65" x 1.39"; 1638mm x 982 mm x 35 mm
Weight	50 lbs; 22.7 Kg
Fire Rating	Class C

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